The Partnership for a New Generation of Vehicles- Government partners working to build an 80-mpg. car and revitalize the American auto industry

The Partnership for a New Generation of Vehicles (PNGV) is a result of a vision shared by President Clinton, Vice President Gore, and the CEOs of the Big Three automakers—Chrysler, Ford, and General Motors. They joined together on September 29, 1993 to announce that they would work in tandem to achieve three aggressive, interrelated R&D goals:

- develop manufacturing techniques to reduce the time and cost of automotive development
- improve fuel efficiency and emission performance
- develop a vehicle with triple the fuel efficiency of today's mid-size cars while maintaining or improving safety, performance, emissions and price.

The first two goals are shorter term and will help form a foundation for meeting the third and most ambitious goal. An aggressive timetable anticipates concept vehicles capable of providing up to 80 mpg. by 2000 and production prototypes by 2004.

On September 29, 1993, President Clinton announced a partnership with automakers for developing the car of the future.

A matter of great importance

The success of the initiative offers major economic, environmental and national security benefits for this country:

- The domestic automobile manufacturing industry directly or indirectly accounts for one out of every seven American jobs, and 4.5% of the gross national product. The development of a new generation of vehicles will improve U.S. competitiveness by establishing the capability for technical leadership in the production of competitively priced, high fuel efficiency, low emission automobiles.
- Automobiles are a major contributor to atmospheric carbon monoxide and carbon dioxide. Concentrations of carbon dioxide, a primary greenhouse gas, are 25% higher than pre-industrial levels, and they are expected to double within the next century.
- In 1995, the nation imported about 50% of the petroleum it consumed, at a net cost of more than $48 billion. With a growing population and continued increases in travel, a significant improvement in vehicle fuel efficiency would be a major step toward lessening our reliance on foreign oil supplies and reducing associated balance-of-trade deficits.

An unprecedented scope of industry/ government cooperation

In early 1991, Chrysler, Ford, and General Motors formed a historic cooperative partnership called the U.S. Council for Automotive Research (USCAR) to share technology in selected research areas. Under the USCAR umbrella, the U.S. Advanced Battery Consortium and the Department of Energy (DOE) joined with USCAR to pool technical resources and expertise to develop electric vehicle batteries with greater storage capacity quickly and cost-effectively.

These efforts laid the groundwork, but the scope of the partnership represented by PNGV is on a scale never before envisioned. Led by the Department of Commerce (DOC), it includes nearly every area of the Federal Government involved with transportation-related technologies and policies: DOC, Department of Defense (DOD), DOE, Department of Transportation (DOT), National Aeronautics and Space Administration (NASA), Environmental Protection Agency (EPA), National Science Foundation (NSF), as well as the Office of the Vice President, Office of Science and Technology Policy, Office of Management and Budget, Office of Environmental Policy and National Economic Council. Of all the Federal agencies, DOE has been the most involved in automotive technologies and has dedicated the most significant budget to accelerating the PNGV goals.

This initiative joins the resources of all these organizations, including their laboratories, with the extensive capabilities of the Big Three automakers, related manufacturers, industry suppliers and American academia to pursue the ambitious goal of the partnership. Research objectives are set by an Operational Steering Group, consisting of senior representatives of the major partners. Identification of special projects and priorities are the responsibility of technical teams, established by the Technical Task Force, whose members are chosen from among technical experts throughout the partnership.

Combining pockets of expertise

The scope of the R&D work needed to meet the PNGV goals would likely be cost-prohibitive for a single or even a small number of organizations. In addition to cost-sharing, the partnership offers many precedent-setting opportunities to combine and build upon complementary technologies that have been developed separately for other purposes. As examples, DOD has extensive expertise in advanced materials areas developed originally for high-tech weapons programs; NASA has state-of-the-art systems integration expertise developed through work on the space shuttle; and DOE offers technologies developed in materials, alternative fuels and propulsion systems areas through decades of cutting-edge R&D work.

A variety of technologies in the portfolio

There are many technologies which are being evaluated for both the short- and long-term applications. These include: advanced manufacturing technologies, lightweight materials, high-performance computing, alternative fuels, fuel cells, fuel reformers, hybrid vehicles, batteries, ultracapacitors and flywheels, efficient air conditioning systems, and low emissions technologies.

A wide range of benefits for the U.S.

The New Generation Vehicle will significantly benefit the American auto industry, the American economy, and the environment. A more competitive auto industry will improve our balance of trade, keeping more dollars in the domestic economy. And, if the vehicle utilizes a domestic fuel, as it is likely to do, the domestic economic benefits are further compounded. The effort will also strengthen one of the largest employment sectors of the American economy, creating and sustaining quality jobs. In addition, the widespread use of vehicles of substantially higher fuel efficiency will mean substantially lower emissions per mile driven and help to improve the quality of our air.

For additional information, please contact:

Office of Transportation Technologies
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585
(202) 586-8055

Printed on recycled paper
7/96